1   **1. (previously presented)** Apparatus in a database management system for performing a job
2   which transfers a set of database objects into or out of the database management system, the
3   apparatus comprising:
4   a transfer mechanism that transfers database objects; and
5   a queryable control database object that represents the job and specifies the set of
6   objects,
7   the transfer mechanism operating under control of the control database object to transfer the
8   objects in the set.

1   **2. (canceled)**

1   **3. (previously presented)** The apparatus set forth in claim 1 wherein:
2   the control database object further specifies an order in which the transfer mechanism
3   transfers the objects in the set.

1   **4. (previously presented)** The apparatus set forth in claim 3 wherein:
2   the order orders the objects in the set by size.

1   **5. (previously presented)** The apparatus set forth in claim 1 wherein:
2   the control database object includes a filter that further specifies the set of objects.

1   **6. (original)** The apparatus set forth in claim 1 wherein:
2   the transfer mechanism further performs an operation on one or more objects belonging
3   to the set; and
4   the control database object includes a specification of the operation.

1   **7. (original)** The apparatus set forth in claim 6 wherein:
2   the operation is an operation that transforms the object.

1   **8. (original)** The apparatus set forth in claim 7 wherein:
2   the operation is an operation that remaps a name in the object to a different name.

Please cancel the second instances of claims 7 and 8.

1   **9. (original)** The apparatus set forth in claim 1 wherein:

2   the control database object includes a specification of a status of the job; and

3   the transfer mechanism updates the status in the specification during the transfer.

1   **10. (original)** The apparatus set forth in claim 9 wherein:

2   the control database object is queryable to obtain a current status of the job from the

3   specification of the status.

1   **11. (original)** The apparatus set forth in claim 9 wherein:

2   the transfer mechanism employs the specification of the status of the job to restart the

3   job after the job has been stopped.

1   **12. (original)** The apparatus set forth in claim 1 wherein:

2   the control database object specifies a remote database management system as a source

3   of the set of objects; and

4   the transfer mechanism fetches the set of objects from the remote database management

5   system.

1   **13. (original)** The apparatus set forth in claim 12 wherein:

2   the control database object specifies the database management system as a destination

3   of the set of database objects; and

4   the transfer mechanism further fetches the set of database objects into the database

5   management system.

1   **14. (original)** The apparatus set forth in claim 1 wherein:

2   the control database object specifies a set of files in the database system as a source or

3   destination of the set of database objects.

1   **15. (original)** The apparatus set forth in claim 14 wherein:

3

2   when the set of files is the source of the set of database objects, the set of files is the

3   result of a job and includes a copy of the control database object for the job.

1   **16. (previously presented)** The apparatus set forth in claim 14 wherein:

2   the control database object is a table and includes rows representing objects belonging

3   to the set of database objects.

1   **17. (original)** The apparatus set forth in claim 16 wherein:

2   each row representing an object belonging to the set includes a specification of an order

3   in which the object represented by the row was transferred to the set of files relative to other

4   objects belonging to the set.

1   **18. (original)** The apparatus set forth in claim 16 wherein:

2   when the set of files is the destination of the set of database objects, there is a row

3   representing each object that has been transferred to the set of files.

1   **19. (original)** The apparatus set forth in claim 16 wherein:

2   when the set of files is the source of the set of database objects, there is a row

3   representing each object which is to be transferred into the database management system.

1   **20. (original)** The apparatus set forth in claim 19 wherein:

2   the row representing a particular object includes a field whose value specifies an order in

3   which the object is to be transferred relative to the other objects.

1   **21. (original)** The apparatus set forth in claim 16 wherein:

2   the set of files is the result of a job and includes a copy of the control database object

3   for the job, the copy having a row for each database object contained in the set of files; and

4   when the transfer mechanism is transferring the objects belonging to the set of objects

5   from the set of files into the database management system, the control database object contains

6   a copy of at least the rows representing the objects from the copy of the control database object

7   in the file set.

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1 **22. (original)** The apparatus set forth in claim 16 wherein:

2 the row in the copied rows representing a particular object includes a field whose value

3 specifies an order in which the object is to be transferred relative to the other objects represented

4 by the copied rows.

1 **23. (original)** The apparatus set forth in claim 14 wherein:

2 the control database object further specifies a template whereby the transfer mechanism

3 may add a file to the set of files when required for transferring the objects.

1 **24. (original)** The apparatus set forth in claim 1 wherein:

2 the control database object specifies a remote database management system as a source

3 of the set of objects and a set of files in the database system as a destination therefor; and

4 the transfer mechanism transfers the set of objects from the remote database

5 management system to the set of files.

1 **25. (original)** The apparatus set forth in claim 1 wherein:

2 the control database object specifies a set of files in the database system as a source of

3 the set of objects; and

4 the transfer mechanism transfers the set of objects from the set of files into the database

5 management system

1 **26. (original)** The apparatus set forth in claim 1 wherein:

2 the transfer mechanism further provides an interface whereby an entity that uses the

3 transfer mechanism may interact with the job.

1 **27. (previously presented)** The apparatus set forth in claim 26 wherein:

2 the interface permits the entity to attach to and detach from the job for as long as the

3 job's control database object exists, transfer of the objects by the transfer mechanism being

4 unaffected by detachment of the entity from the job.

1 **28. (original)** The apparatus set forth in claim 26 wherein:

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2   the entity may use the interface via a network connection to the database management

3   system.

1   **29. (original)** The apparatus set forth in claim 26 wherein:

2   the interface includes a defining interface whereby the entity may define a portion of

3   the job's control database object.

1   **30. (original)** The apparatus set forth in claim 26 wherein:

2   the interface includes an executing interface whereby the entity may interact with the

3   transfer mechanism from the time the transfer mechanism begins transferring the objects in the

4   set until the job's control database object ceases to exist.

1   **31. (original)** The apparatus set forth in claim 30 wherein:

2   the entity may use the executing interface to obtain a current status of the job from a

3   specification of the status of the job in the control database object.

1   **32. (original)** The apparatus set forth in claim 27 wherein:

2   the entity may use the executing interface to stop performance of the job by the transfer

3   mechanism or the transfer mechanism may stop performance of the job in response to an error.

1   **33. (original)** The apparatus set forth in claim 32 wherein:

2   the entity may use the executing interface to restart a stopped job, the transfer

3   mechanism using a specification of the status of the job in the control database object to restart

4   the job.

1   **34. (original)** The apparatus set forth in claim 30 wherein:

2   the entity may use the executing interface to affect allocation of resources by the

3   transfer mechanism to the job.

1   **35. (original)** The apparatus set forth in claim 34 wherein:

2   the transfer mechanism operates on objects in the set in parallel; and

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3 the entity uses the executing interface to specify a maximum degree of parallelism for

4 the job.

1 **36. (previously presented)** A set of files for transferring a set of database objects into a

2 database management system,

3 the set of files comprising:

4   at least one file containing the objects belonging to the set thereof; and

5   a queryable control database object contained in a file belonging to the set of files that

6 specifies for each object belonging to the set the location of the object in the set of files and an

7 order in which the database management system transfers the object during the transfer.

1 **37. (original)** The set of files set forth in claim 36 wherein:

2   the file further includes metadata that defines a type of database objects and one or

3 more database objects that belong to the type defined by the metadata; and

4   the order determines that the metadata is processed before the database objects that

5 belong to the type defined by the metadata.

1 **38. (original)** The set of files set forth in claim 36 further comprising:

2   a header in each file of the set, the header including

3   an indication the control object is contained in the file and if so, the location of

4 the control object in the file and

5   an identifier that identifies the file within the set; and

6   the control object uses the identifier in specifying the location of the object in the set of

7 files.

1 **39. (canceled)**

1 **40. (canceled)**

1 **41. (canceled)**

1   **42. (canceled)**

1   **43.   (previously presented)** A method of performing a job that transfers a set of database

2   objects into or out of a database management system that includes a transfer mechanism that

3   transfers the database objects,

4   the method comprising the steps of:

5   defining a queryable control database object that represents the job and specifies the set

6   of objects; and

7   executing the job by causing the transfer mechanism to transfer the set of database

8   objects under control of the control data base object.

1   **44.   (original)** The method of performing a job set forth in claim 43 further comprising

2   the step performed in either the defining step or the executing step of:

3   attaching to the job, attachment permitting at least reading and/or modification of

4   the job's control database object.

1   **45.   (original)** The method of performing a job set forth in claim 44 further comprising

2   the step performed after the step of attaching to the job of:

3   reading the job's control database object to get the job's current status.

1   **46.   (original)** The method of performing a job set forth in claim 44 wherein

2   the transfer mechanism transfers the data objects in parallel and

3   the method further comprises the step performed after the step of attaching to the job of:

4   specifying a degree of parallelism with which the objects may be transferred.

1   **47.   (original)** The method of performing a job set forth in claim 44 wherein the method

2   further comprises the step performed after the step of attaching to the job of:

3   starting the step of executing the job.

1   **48.   (original)** The method of performing a job set forth in claim 44 wherein the method

2   further comprises the step performed after attaching to the job of:

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3　　　　stopping the step of executing the job.

1　　**49. (original)** The method of performing a job set forth in claim 48 wherein the step of

2　　stopping the step of executing the job further comprises the step of:

3　　　　saving job state in the control database object such that the step of executing the

4　　job may be restarted from the job state.

1　　**50. (original)** The method of performing a job set forth in claim 43 wherein:

2　　　　the step of defining the job includes the step of creating the job's control database

3　　object.

1　　**51. (original)** The method of performing a job set forth in claim 43 wherein:

2　　　　the step of defining the job includes the step of specifying a source and/or

3　　destination for the set of database objects in the job's control database object.

1　　**52. (canceled)**

1　　**53. (previously presented)** The method of performing a job set forth in claim 43

2　　wherein:

3　　　　the step of defining the job includes the step of specifying a filter in the job's

4　　control database object, the filter defining a subset of the specified set of database objects

5　　as the set of objects to be transferred in the job.

1　　**54. (original)** The method of performing a job set forth in claim 43 wherein:

2　　　　the step of defining the job includes the step of specifying an operation in the job's

3　　control database object that is to be performed on one or more objects in the set.

1　　**55. (original)** The method of performing a job set forth in claim 43 wherein:

2　　　　the step of defining the job includes the step of defining a parameter for the job in

3　　the job's control database object for the job.

1　　**56. (previously presented)** The method of performing a job set forth in claim 43

2　　wherein

3   the step of executing the job includes the step performed when the step of

4   executing the job must be stopped of:

5   saving job state in the control database object such that the stopped executing step

6   may be restarted from the job state.

1   **57. (original)** The method of performing a job set forth in claim 56 wherein the step of

2   executing the job includes the step performed when the step of executing the job has been

3   stopped of:

4   using the job state to restart the stopped executing step.

1   **58. (previously presented)** The apparatus set forth in claim 1 wherein:

2   the control database object includes a specification of one or more parameters for

3   the job,

4   the transfer mechanism transferring the objects in the set as specified by the parameter.

1   **59. (currently amended)** The apparatus set forth in claim 7-58 wherein:

2   the parameter is an estimate only parameter,

3   the transfer mechanism responding thereto by providing an estimate of the space required

4   for the objects in the set without transferring the objects.

1   **60. (previously presented)** The apparatus set forth in claim 1 wherein:

2   the control database object is a table and includes rows representing the objects

3   belonging to the set of database objects.

1   **61. (previously presented)** The apparatus set forth in claim 60 wherein:

2   the row representing a particular object includes a field whose value specifies an

3   order in which the object is to be transferred relative to the other objects.

1   **62. (previously presented)** A data storage device characterized in that:

2   the data storage device contains code which, when executed by a processor,

3   implements the apparatus set forth in claim 1.

1   **63. (previously presented)** A data storage device characterized in that:

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2   the data storage device contains the set of files set forth in claim 36.

1   **64. (canceled)**

1   **65. (previously presented)** A data storage device characterized in that:

2   the data storage device contains code which, when executed by a processor,

3   implements the method set forth in claim 43.

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